Self-Contained Watch, Warning, Advisory Model

(Design Document)

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October 21, 2002

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1. SELF-CONTAINED WWA MODEL OVERVIEW

1.1. Introduction

This design document describes proposed changes to accommodate a "self-contained" Watch Warning & Advisory (WWA) application. In short, the current WWA model passes prepared products from WWA to the text workstation for forecaster free text input before public dissemination. In a self-contained design WWA will no longer utilize the text workstation for this input or for dissemination and will instead incorporate these features within the WWA code itself, thus the name "self-contained" WWA Model.

The reason behind this change is to accommodate new requirements and correct bugs with the most efficient solution possible, while increasing the usability of the application within reason. The necessary information has been included in subsequent sections to describe the self-contained model for the broad audience reviewing this document. It is also worth mentioning that the provided interface examples are only conceptual and therefore final aesthetics may appear slightly different.

1.2. Solution Summary

This section highlights the largest benefits to building in self-contained functionality:

- Capturing Free Text:

  Some products, such as a Winter Storm Warning (WSW), contain forecaster input categorized as free text - see figure 8. Capturing text will allow forecasters to utilize previous input on product life cycle development. Capturing free text is a necessary step toward a self-contained design in allowing initial free text input when following-up or extending the life of an issued product. For design details with respect to capturing free text, reference sections 2.2.1, 2.2.2 and 3.1. of this document.

- Quality Control (QC-RWP 288):

  In short, RWP 288 lists requirements to QC watch, warning, and advisory products created by WWA & WarnGen, which also accounts for free text information. As part of the self-contained design the ability to capture text and transmit products from the WWA application will significantly minimize the QC effort related to this RWP. For more information on RWP 288 reference: http://isl715.nws.noaa.gov/awips/pub/B5/rwp/rwp0288.htm

- Incrementing the Valid Time Event Code (VTEC) Event Tracking Number (ETN):

  In the current text workstation dependent WWA model, VTEC ETN increments upon creation rather than upon dissemination. Because of this an inaccurate ETN is possible if the forecaster backs out of sending a product already displayed on the text workstation. Since a self-contained model provides the ability to transmit products directly from WWA, it will then be possible to increment the ETN upon a verified dissemination rather than upon product creation. For more information on VTEC visit: http://www.nws.noaa.gov/om/vtec/vtec.pdf

1.3 Design Considerations

Although one design is presented in this document numerous other options were considered, mainly with respect to the aesthetics or user interactions of WWA user interfaces. In the end, the design represented in the subsequent sections takes into account the user, new requirements, current design flaws, and also solves existing bugs simply by incorporating the described design.

Finally, some functionally defined within this document prepares work for new requirements to be added after this dependent model shift. An example is the addition of the *Help Menu* option found under *Help* on provided menu bars. This option will be included, however not made active until after the self-contained model is deployed and the associated functionality is designed and developed.

2. SOFTWARE ARCHITECTURE

This section provides unified modeling language (UML) architecture affecting changes to existing WWA functionality, as well as new functionality, to accommodating a self-contained model. The greatest level of detail is provided in the use case diagram and associated use case information, however context diagrams were also included for clarity. Because most changes effect the WWA composer this subset is the architectural focus, however other basic subset information is included for continuity.

2.1. Use Case Diagram

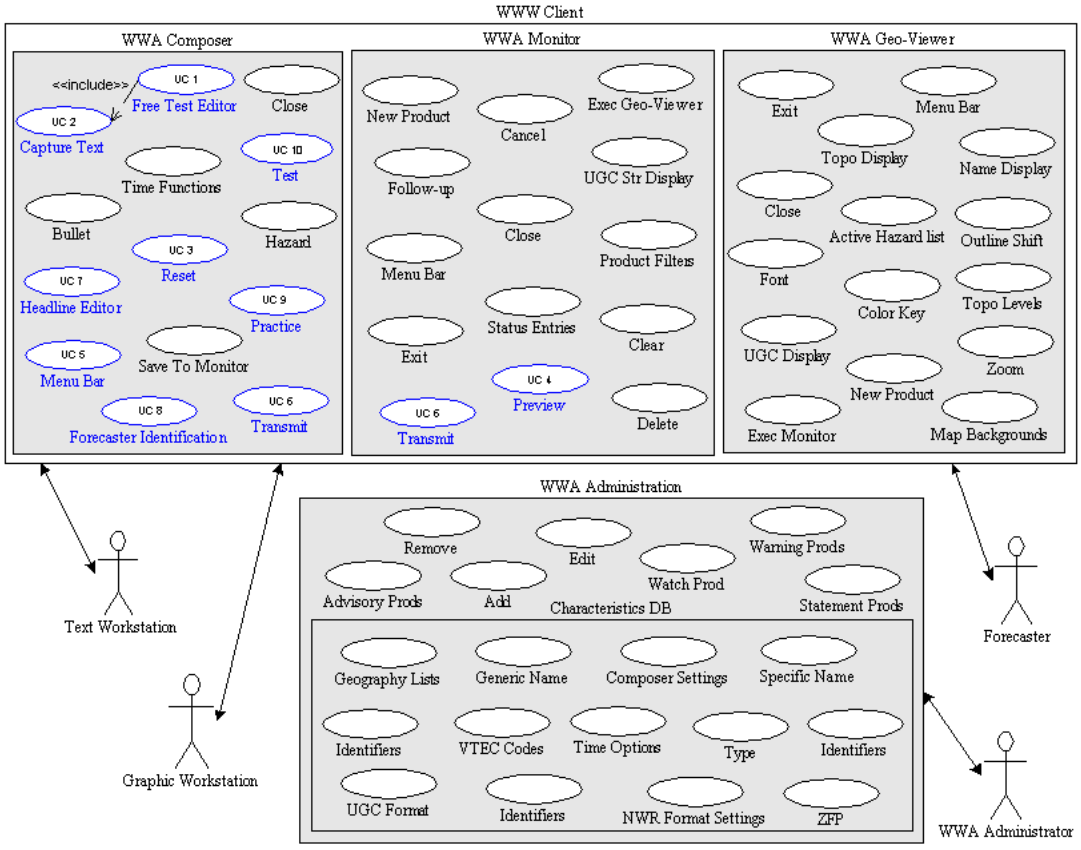

Figure 1 - WWA self-contained use case diagram with alterations highlighted.
**Blue use case represents a decomposition in subsequent sections.*

2.2. Self-Contained Use Case Information

2.2.1. Free Text Editor Use Case

Use Case Name:	Free Text Editor	**ID**:	UC1
Initiating Actor(s):	Forecaster		
Description:	A forecaster wishes to enter free text not generated by the WWA application.		
Pre-Conditions:	WWA Composer open/active.		
Event Course:	1) The forecaster opens a free text editor by selecting one of two possible buttons located on the WWA composer interface, *Overview/Synopsis* or *Descriptive Text*. 2) Free text is entered into the provided text entry widget. 2.1)Tools to assist in this process shall be found under *Options* on the menu bar and includes; *undo, cut*, *copy*, *paste, retrieve previous text, and spell check* functions 2.2) The ability to clear the entire text entry widget can be accomplished by selecting *New* found under *File* on the menu bar. 2.2.1) If selected with unsaved text in the text widget a message box prompting the user to save or continue without saving will be displayed before the text widget is cleared. 2.3) A button bar located just below the menu bar will provide quick access to the *Spell Check* and *Save & Close* routines. 2.4) *Retrieve Previous Text* function located under *Options* on the menu bar will provide a means of retrieving the last known text for the selected product type. 2.4.1) If selected on a blank text widget, retrieved text shall be placed in text widget else a message box prompting the user to save or continue without saving before text is retrieved. 3) Once the desired text is entered forecasters can select the *Save & Close* button on the button bar or by selecting *Save,* then *Close,* with both options found under *File* on the menu bar. 3.1) Selecting *Save & Close* shall automatically save the entered text and close the free text editor window. 4) To exit without saving changes select *File*, then *Close* on the menu bar.		
Post-Conditions:	Entered text stored in WWA database		
External Server Actor(s):	None		
External Receiver Actor(s):	None		
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	Detailed Use Case Information		
Use Case Name:	Free Text Editor	**ID**:	UC1
Assumptions:	Forecaster is creating a WWA product.		
Associated Non Behavioral Requirements:	Performance (Response time) 1) No time constraints, can stay open as long as needed. Capacity 1) Tied to WWA Composer interface. If composer window is closed so shall the free text editor. 2) Only one editor can be open for a single session to enter overview & synopsis information. 3) Only one editor can be open for a single session to enter descriptive text information. 4) A single overview/synopsis and descriptive text editor can be open at the same time. 5) No size limitation of entered text. Security N/A Design Constraints None Other Non Behavioral Requirements 1) QC: Carriage return between overview & synopsis sections. 2) QC: If *Close* is selected under *File* on the menu bar, with unsaved text in the text widget, the forecaster shall be prompted to save or continue without saving changes. 2.1) Also true if window frame close used, IE upper right X. 3) When editor is closed the text widget shall be cleared for descriptive text editing. 4) When editor is closed, while composer interface is open, the overview/synopsis text shall not be cleared for continued, and single, use in combining multiple segments. 5) Once *a* successful transmission is complete any defined Overview/Synopsis text will be cleared from the text widget. 6) When *Save* is selected, under *File* on the menu bar, the window widget should reflect saved data. IE, *Active WWA - Free Text Editor (unmodified)* 7) When a text change is made in the text widget, the window widget shall reflect unsaved data. IE, *Active WWA - Free Text Editor* 8) Forecasters can toggle between the *Overview/Synopsis* and *Descriptive Text* fields by selecting the appropriate radio checkbox located under *Options* on the menu bar.		
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	Detailed Use Case Information (cont)		
Use Case Name:	Free Text Editor	**ID**:	UC1
Associated Non Behavioral Requirements:	Other Non Behavioral Requirements (cont) 9) Toggle between *Overview/Synopsis* and *Descriptive Text* under *Options* on the menu bar shall clear or update the text widget with previously entered text from same session as pulled from the wwa database. 10) QC: Toggle between *Overview/Synopsis* and *Descriptive Text* function found under *Options* on the menu bar, with unsaved text in the text widget, shall initiate a message box to save or continue without saving changes. 11) Menu bar options shall contain keyboard accelerators: 11.1) File: New Ctrl+N, Save Ctrl+S, Close Ctrl+F4. 11.2) Edit: Undo Ctrl+Z, Cut Ctrl+X, Copy Ctrl+C, Paste Ctrl+V 11.3) Options: Spell Checker Ctrl+F1, Overview/Synopsis Ctrl+F5, Descriptive Text Ctrl+F6, Retrieve Previous Text Ctrl+F9 11.4) Help: Help Menu Ctrl+H (displayed but inactive) 12) A vertical scroll bar shall be provided and tied to the text widget for scrolling text longer than the provided viewing area and placed to the right of the text widget spanning the same vertical distance. 13) Text font for entry widget shall be "Times New Roman", 12 pt. 14) Text entry widget shall maintain a 69 character horizontal length. 15) The vertical distance of the text widget should be approximately 20 individual carriage returns in size. 16) Text longer than 69 characters shall automatically wordwrap by use of "\n" 17) The editing session shall be displayed on the free text editor title bar. 17.1) For Overview/Synopsis editing example: *Active WWA - Overview/Synopsis Free Text Editor <Hogan> (unmodified)* 17.2) For Descriptive Text editing example: *Active WWA - Descriptive Text Free Text Editor <Hogan>* 18) QC: Check for selected hazard. If selected present free text editor, else message box displaying the need to first select a hazard. 19) The free text editor interface shall open in the foreground, in the center, of the terminal running the WWA client software.		
Use Case Priority:	High		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None		
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2.2.2. Capture Text Use Case

Use Case Name:	Capture Text	**ID**:	UC2
Initiating Actor(s):	Forecaster. Input through free text editor		
Description:	A forecaster wishes to provide free text not prepared by the WWA application. There are two separate locations where free text shall be captured, Overview/Synopsis and Descriptive Text. This information shall then be used for product life cycles such as; following-up or extending an issued product.		
Pre-Conditions:	WWA Composer open/active, hazard selected.		
Event Course:	Capturing Overview/Synopsis Text: 1) To capture overview & synopsis free text information the forecaster will select the *Overview/Synopsis* button from the WWA composer interface to launch the free text editor. 1.1) In an open free text editor it is possible to toggle into this mode by selecting *Options*, then *Overview/Synopsis* on the menu bar or by using the provided accelerator option. 1.2) The overview section is an optional headline located below the issuance time/date, above the entered synoptic text, both separated by a carriage return. 1.3) The optional synopsis section is text located below the overview section and above the UGC field. 1.4) Because the overview & synopsis sections share the same editor space it is the responsibility of the forecaster to separate each field by the required carriage return. 1.5) The overview & synopsis information is optional. If text is not provided this field shall remain null and not print in the final product. 2) Text shall be stored when one of two save options are selected from the free text editor. Capturing Descriptive Text: 1) To capture descriptive free text information the forecaster will select the *Descriptive Text* button from the WWA composer interface to launch the descriptive text free text editor. 1.1) In an open free text editor it is possible to toggle into this mode by selecting *Options*, then *Descriptive Text* on the menu bar or by using the provided accelerator option. 1.2) Descriptive text is located below the headline and above the segment delimiter, both separated by a single carriage return. 2) Text shall be stored when one of two save options are selected from the free text editor.		
Post-Conditions:	Entered text stored in WWA database		
External Server Actor(s):	WWA database / informix server		
External Receiver Actor(s):	None		
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	Detailed Use Case Information		
Use Case Name:	Capture Text	**ID**:	UC2
Assumptions:	Forecaster is creating a WWA product.		
Associated Non Behavioral Requirements:	Performance (Response time) 1) Text should be stored upon request, no delay. Capacity 1) Capturing text is tied to the free text editor. 2) Captured text shall be stored two versions back as to support the *Retrieve Last Text* function described in UC1. 3) No data backup necessary after product purge. 4) No limit to the amount of text stored. Security N/A Design Constraints None Other Non Behavioral Requirements 1) Overview and synopsis sections stored together into the WWA database, *wwa_text* table, in column *synopsis*. 2) Descriptive Text is stored into the WWA database, *wwa_text* table, in column *descriptive*. 3) Overview/Synopsis & Descriptive Text shall be stored with no carriage return(s) before or after entered text segment. 4) When stored text is printed to final WWA product a single carriage return shall be used to separate the overview and/or synopsis sections below the issuance time/date field and above the UGC field. 5) If free text is provided in the initial product development any subsequent life cycles performed on this issued product shall retrieve the saved text and placed in the provided text widget of the free text editor. 6) Product life cycle events shall shift current stored text to previous position in the WWA db and then replace current field with new free text, for both Overview/Synopsis and Descriptive Text fields. Done to keep latest free text information available for next product life cycle and a stored version for use by *Retrieve Last Text* described in UC1. 7) QC: When *Save & Close* on the button bar or when *Save* then *Close* is selected from under *File* on the free text editor menu bar the provided Overview/Synopsis text shall be parsed to verify a single carriage return separates these two fields, if provided.		
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	Detailed Use Case Information (cont)		
Use Case Name:	Capture Text	**ID**:	UC2
Associated Non Behavioral Requirements:	Other Non Behavioral Requirements (cont) 7.1) If a carriage return does not separate the overview & synopsis fields an OK / Continue message box shall be displayed to the user. 7.1.1) Message box text: *NWS policy states that a single carriage shall be located between the overview & synopsis fields. Select Cancel to correct or OK to continue*. 7.1.1.1) OK: will allow the user to re-enter the free text editor to make changes before saving. 7.1.1.2) Cancel: will allow the user to bypass the error checking routine without any text changes. 8) When creating separate segments, combined into a single product, only one Overview/Synopsis section can be utilized. While the composer window is open and segments are being created the same text shall be utilized while different descriptive input can be entered. 9) In the case of combining segments in the WWA monitor, after the composer window is closed, the Overview/Synopsis field from the first selected segment shall be used. 9.1) The Descriptive Text field shall remain unchanged for each selected segment.		
Use Case Priority:	High		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None		
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2.2.3. Reset Use Case

Use Case Name:	Reset	**ID**:	UC3
Initiating Actor(s):	Forecaster		
Description:	Redefinition of the Restart function to a Reset function		
Pre-Conditions:	Active WWA client & composer interface		
Event Course:	1) Forecaster decides to reset all WWA settings to their default values by selecting the *Reset* button located three buttons from left to right on the composer button bar. 1.1) *Reset All*: Selecting this option shall set the overview/synopsis & descriptive text fields, geo-viewer, time functions, tone alert, bullets, headlines, and hazard menu selections to their default settings. 1.1.1) All and partial resets can be accomplished through the WWA composer menu bar as defined in UC5, restated below. 1.1.1.1) *Reset All*: Selecting this option shall set the overview/synopsis & descriptive text fields, geo-viewer, time functions, tone alert, bullets, headlines, and hazard menu selections to their default settings - same functionality as *Reset* found on button bar. 1.1.1.2) Reset Times: Selecting this option shall reset the beginning, duration, and expiration time fields found on the WWA composer interface to their default values. 1.1.1.3) Reset Geographical Area: Selecting this option shall reset any selected zone/county fields located within the geo-viewer to their default setting. 1.1.1.4) Reset Bullets: Selecting this option shall reset any selected bullets located on the WWA composer interface to their default setting.		
Post-Conditions:	Default settings set in composer interface		
External Server Actor(s):	None		
External Receiver Actor(s):	None		
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	Detailed Use Case Information		
Use Case Name:	Reset	**ID**:	UC3
Assumptions:	Active WWA session		
Associated Non Behavioral Requirements:	Performance (Response time) N/A Capacity N/A Security N/A Design Constraints N/A Other Non Behavioral Requirements 1) Reset functions found under the WWA composer menu bar will maintain accelerators as defined in UC 5, but listed again here. 1.1) Reset: Reset All Ctrl+A, Reset Geographical Area Ctrl+G, Reset Bullets Ctrl+B 2) Headline reset shall default to the template defined headline, for each defined life cycle field, of the associated template.		
Use Case Priority:	low		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None		
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2.2.4. WWA Monitor Preview Display Use Case

Use Case Name:	Preview (Monitor)	**ID**:	UC4
Initiating Actor(s):	Forecaster		
Description:	A forecaster wishes to display product text from the WWA monitor before combining segments or to view a single segment.		
Pre-Conditions:	WWA monitor active, available product for viewing.		
Event Course:	Single Segmented Product 1) Forecaster selects a product listed in the WWA monitor with a center mouse click to launch preview interface. 2) After viewing is complete, the preview interface can be closed by selecting the *Close* button located at the bottom center of the preview interface. Multi-Segmented Product 1) Forecaster selects & highlights each individual segment listed in the monitor for gathering into a single product with the left mouse button. 1.1) In the case of multiple Overview/Synopsis sections located in individual segments the Overview/Synopsis of the first selected WWA shall be used in the created product. 2) After selections are made a center mouse selection shall launch the preview interface displaying the complete product of combined segments. 3) After viewing is complete, the preview interface can be closed by selecting the *Close* button located at the bottom center of the preview interface.		
Post-Conditions:	None		
External Server Actor(s):	None		
External Receiver Actor(s):	None		
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	Detailed Use Case Information		
Use Case Name:	Preview (Monitor)	**ID**:	UC4
Assumptions:	Non active product development		
Associated Non Behavioral Requirements:	Performance (Response time) 1) Preview interface can remain active until user selects *Close* or when the WWA monitor is closed. Capacity 1) Preview shall only display one product at a time for current session. Security N/A Design Constraints None Other Non Behavioral Requirements 1) Text entry widget shall be read only. 2) A scroll bar shall be included for scrolling long text products and located to the right of the text widget, spanning the same vertical distance. 3) Preview interface shall display the complete product including captured text. 3.1) This for all product entries including adjacent site products. 4) Text viewer shall maintain a 69 character horizontal length. 5) Text longer than 69 characters shall automatically wordwrap by use of "\n" 6) Font used in text widget shall be "Times New Roman", 12pt. 7) The vertical size of text widget should be approximately 25 carriage returns in length. 8) Any product can be previewed regardless of its state: proposed, unformatted, unissued, issued, follow up, expiring, practice, or test. 9) Preview interface is tied to the WWA client. In the event the WWA client is closed an active preview interface shall also close.		
Use Case Priority:	Low		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None		
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2.2.5. WWA Composer Menu Bar Use Case

Use Case Name:	Menu Bar (Composer)	**ID**:	UC5
Initiating Actor(s):	Forecaster		
Description:	A forecaster wishes to adjust WWA settings. The composer menu bar contains three fields; *File*, *Options* and *Help* to assist in product development.		
Pre-Conditions:	WWA Composer open/active, pre-product creation configuration		
Function Description:	1) File: This menu option contains a function to *Close* the composer interface and its functionality echos the *Close* button found on the bottom right of the composer interface. 2) Options: This menu option contains functions to select *Forecaster Identification*, change WWA *Mode*, and to select a WFO for *Site Backup*. The mode and site backup functionality located here shall maintain the same functionality as that of the removed *mode* and *site* selection previously found in the composer pull down menus. Also under *Options* shall be reset functions to *Reset All*, *Reset Times*, *Reset Geographical area*, and *Reset Bullets* - UC3. The reset options will allow forecasters to start the active session over or portions of the session through accelerator functions or mouse selections. 2.1) Forecaster Identification(UC8): This function will launch a separate graphical user interface providing a selectable list of predefined forecaster identification information. 2.1.1) Making a selection from this interface shall insert the selected forecaster identification at the end of EVERY created WWA product. 2.2) Headline Editor (UC7): This function will launch a separate graphical user interface providing the ability to edit template file supplied headlines before transmitting. 2.3) Mode: This cascading menu contains a radio checkbox to toggle between *Active*, *Practice*, *Test*, and *Proposed* modes. Each selected state shall maintain its setting until altered by the forecaster or reset to the default, *Active* setting, upon client startup. 2.3.1) Active: Selecting this default option sets WWA as active for operational use. Default setting. 2.3.2) Practice (UC9): Product creation as in active, with "test" text spread throughout the product, and stored locally through handleOUP (Appendix 3) 2.3.3) Test (UC10): Product creation as in active, with "test" text spread throughout the product, distributed through handleOUP as "DEF" (Appendix 3) 2.3.4) Proposed: Setting used as an intersite coordination tool. Not a setting for public dissemination. 2.4) Site Backup: This cascading menu allows forecasters to switch into a backup mode by selecting the appropriate WFO. 2.5) *Reset All*: Selecting this option shall set the overview/synopsis & descriptive text fields, geo-viewer, time functions, tone alert, bullets, headlines, and hazard menu selections to their default settings.		
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Use Case Name:	Menu Bar (Composer) (cont)	**ID**:	UC5
Function Description:	2.6) Reset Times: Selecting this option shall reset the beginning, duration, and expiration time fields found on the WWA composer interface to their default values. 2.7) Reset Geographical Area: This option shall reset any selected zone/county fields located in the active Geo-Viewer map to their default setting. 2.8) Reset Bullets: Selecting this option shall reset any selected bullets located on the WWA composer interface to their default setting. 3) Help: Menu function to provide access to WWA help options. 3.1) Help Menu: Inactive function until defined		
Post-Conditions:	Variant based on desired selection.		
External Server Actor(s):	None		
External Receiver Actor(s):	None		
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	Detailed Use Case Information		
Use Case Name:	Menu Bar (Composer)	**ID**:	UC5
Assumptions:	Active setting in Xdefaults file		
Associated Non Behavioral Requirements:	Performance (Response time) N/A Capacity N/A Security N/A Design Constraints None Other Non Behavioral Requirements 1) Help Menu: This menu option shall be included, but remain inactive until functionality is defined and developed. 2) Menu bar options shall contain keyboard accelerators: 2.1) File: Close Ctrl+F4. 2.2) Options: 2.2.1) Headline Editor: Headline Editor Ctrl+F4 2.2.2) Mode: Active Ctrl+F2, Test Ctrl+F5, Practice Ctrl+10, Proposed+F12 2.2.3) Reset: Reset All Ctrl+A, Reset Geographical Area Ctrl+G, Reset Bullets Ctrl+B 2.3) Help: Help Menu Ctrl+H (displayed but inactive) 3) Menu pull down options reflecting Session, Mode, & Site Backup shall be removed and now controlled through the menu bar. 4) *File* and *Options* menu items shall be located to the far left of menu bar. *Help* shall be located to the right - see figure 9.		
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	Detailed Use Case Information (cont)		
Use Case Name:	Menu Bar (Composer)	**ID**:	UC5
Associated Non Behavioral Requirements:	Other Non Behavioral Requirements (cont) 4) Xdefaults file settings for active/inactive menu bar functionality on composer interface. 5) Xdefault settings shall be reflected/added into WWA administration interface.		
Use Case Priority:	Medium		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	*Help Menu* available on other client interfaces. None for other options.		
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2.2.6. Transmit Use Case

Use Case Name:	Transmit	**ID**:	UC6
Initiating Actor(s):	Forecaster		
Description:	Provides product dissemination directly from WWA client (Composer and/or Monitor).		
Pre-Conditions:	WWA Composer open/active, product/segment complete or WWA stored in monitor. Same transmit function for both WWA Composer and WWA Monitor.		
Event Course:	From WWA Composer 1) After developing a desired WWA product / segment selecting *Transmit* shall launch the product dissemination interface. 1.1) The dissemination interface maintains a dynamic header block asking forecasters to verify transmission of developed product. IE, *Transmit LWSNPWLWX?* 1.2) The dissemination interface provides an option to back out of the transmission process by selecting the *No* button located at the bottom center of interface. 1.3) The dissemination interface provides an option to transmit the developed product by selecting the *Yes* button located at the bottom center of interface. 1.4) The dissemination interface provides a "read only" display of the created product. Any changes must be made through the provided composer and/or geo-viewer interfaces by backing out of the transmission process with a *No* selection. 2) Forecaster selects the *Yes* button to disseminate product to NWS customers or *No* to exit without dissemination. Yes - Transmit 2.1) Product shall disseminate through handleOUP processing with location defined as "DEF" and support partial product life cycle states - See Appendix 1 2.1.1) Partial product Life cycle translation: ADM = Followup, Clear, Cancel. Initial does not need [-w WMO_special_message_type] 2.2) wwa_nwr shall execute if active setting (previously a WWA server function) 2.3) wwaPush shall execute if active setting (previously a WWA server function) 2.4) Product stored in WWA db status table (previously a WWA server function) 2.5) A successful return code from handleOUP shall prompt an "OK" message box stating "*CCCNNNXXX transmission successful*", where CCCNNNXXX is the dynamic product ID similar to PDXWSWPDX 2.5.1) Once "OK" is selected from the popup message box, the message box, transmit interface, and composer interface shall all close.		
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Use Case Name:	Transmit (cont)	**ID**:	UC6
Event Course:	From WWA Monitor 1) Forecaster will select an unissued WWA from the monitor interface, then select *Transmit* to launch product dissemination interface. 1.1) To transmit segmented products first select the multiple segments before selecting transmit. 1.2) The dissemination interface maintains a dynamic header block asking forecasters to verify transmission of developed product. IE, *Transmit LWSNPWLWX?* 1.3) The dissemination interface provides an option to back out of the transmission process by selecting the *No* button located at bottom center of interface 1.4) The dissemination interface provides an option to transmit the developed product by selecting the *Yes* button located at the bottom center of interface. 1.5) The dissemination interface provides a "read only" display of the created product. Any changes must be made through the provided composer and/or geo-viewer interfaces by backing out of the transmission process with a *No* selection. 2) Forecaster selects the *Yes* button to disseminate product to NWS customers or *No* to exit without dissemination. Yes - Transmit 2.1) Product shall disseminate through handleOUP processing with location defined as "DEF" and support partial product life cycle states - See Appendix 1 2.1.1) Partial product Life cycle translation: ADM = Followup, Clear, Cancel. Initial does not need [-w WMO_special_message_type] 2.2) wwa_nwr shall execute if active setting (previously a WWA server function) 2.3) wwaPush shall execute if active setting (previously a WWA server function) 2.4) Product stored in WWA db status table (previously a WWA server function) 2.5) A successful return code from handleOUP shall prompt an "OK" message box stating "*CCCNNNXXX transmission successful*", where CCCNNNXXX is the product ID similar to PDXWSWPDX. 2.5.2) Once "OK" is selected from the popup message box, the message box, transmit interface, and composer interface (if active) shall all close.		
Post-Conditions:	Product dissemination to public or none depending on selection (yes/no).		
External Server Actor(s):	wwa_nwr, wwa_push, handelOUP, wwa_monitor,		
External Receiver Actor(s):	wwa_receive		
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	Detailed Use Case Information		
Use Case Name:	Transmit	**ID**:	UC6
Assumptions:	Operational handleOup.pl		
Associated Non Behavioral Requirements:	Performance (Response time) 1) TBD, yet based on approved & operational response time incorporated into handleOUP. Capacity None Security 1) N/A with respect to WWA, managed by current handleOUP process. Design Constraints 1) That of handleOUP - Appendix 1 of self-contained design document. Other Non Behavioral Requirements 1) Proposed products will not be transmitted to the public through the *transmit* process, yet disseminated through the existing functionality as an intersite coordination tool. 2) Red *Transmit* wording used for bottom left button on button bar. 3) QC: Check return codes from handleOUP and display appropriate message to forecaster. 3.1) Successful transmission: Display message box stating *XXXNNNCCC transmitted successfully*. (handleOUP return = 0, see Appendix 1) 4.1.1) A button to close & acknowledge should be included in message box. 3.2) Unsuccessful transmission: Display selectable message box stating "*HandleOUP Error, contact NCF*" (handleOUP return = 1, see Appendix 1) 4) VTEC ETN shall be incremented & stored in the WWA database upon a verified successful transmission. 5) Transmission interactions shall be logged along with error or warning messages. 6) Transmit graphical user interface title bar shall read, <*Session Type*> *WWA - Transmit* along with other window title commitments. 7) Provided free text shall accompany the full created product for intersite coordination functionality. 8) The WWA server shall be removed and the needed wwa_nwr, wwaPush, & ability to store product information in WWA db status table shall be ported into this transmit function.		
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	Detailed Use Case Information (cont)		
Use Case Name:	Transmit	**ID**:	UC6
Associated Non Behavioral Requirements:	Other Non Behavioral Requirements (cont) 10) QC: Check for selected hazard type, if none before composer *Transmit* is selected display a error box to first make this selection. 11) QC: Check for product selection, if none before monitor *Transmit* is selected display a error box to first make this selection. 12) Text viewer shall be "read only" and maintain a 69 character horizontal length. 13) Text longer than 69 characters shall automatically wordwrap by the use of '\n' 14) Font used in text widget shall be "Times New Roman", 12pt. 15) The vertical size of text widget should be approximately 25 carriage returns in length. 16) A scroll bar shall be included for scrolling long text products and located to the right of the text widget, spanning the same vertical distance. 17) Session type shall be displayed in ALL WWA client window title bars as the first word in the string for the "Active" mode selection. 17.1) Free text editor example: *Active WWA - Overview/Synopsis Free Text Editor <Hogan> (unmodified)* 18) Toggling between practice, test, & active modes shall maintain the created product so as not to force recreation. However, test indicators provided in the practice and test modes shall be removed if switched to active. 19) The transmit interface is tied to the WWA client. If the WWA client is closed so to should an active transmit interface. 20) The transmit interface is tied to the WWA composer interface. If the WWA composer interface is closed, so to should the transmit interface.		
Use Case Priority:	High		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	Practice Mode (UC9), Test Mode (UC10)		
	Page 4 of 4		

2.2.7. Headline Editor Use Case

Use Case Name:	Headline Editor	**ID**:	UC7
Initiating Actor(s):	Forecaster		
Description:	Provides the ability to tweak template file initiated headlines before transmitting from WWA application.		
Pre-Conditions:	WWA Composer active, hazard type selected, template file available.		
Event Course:	1) Selecting *Options*, then *Headline Editor* from the composer menu bar shall launch the headline editor. 1.1) A default headline shall be supplied from the associated selected hazard template file. 1.2) In the event a headline is missing in the associated template file the text widget shall open blank. 2) Any headline tweaking shall be done in the provide text entry widget. 3) Changes are saved by selecting the *Save & Close* button located on the bottom left of the interface. 3.1) To exit without saving the forecaster should select the *Cancel* button located at the bottom right of editor interface.		
Post-Conditions:	Changes effect headline for final WWA product and not passed to IFPS for injection.		
External Server Actor(s):	None		
External Receiver Actor(s):	None		
	Page 1 of 2		

	Detailed Use Case Information		
Use Case Name:	Headline Editor	**ID**:	UC7
Assumptions:	Working from Composer interface only.		
Associated Non Behavioral Requirements:	Performance (Response time) N/A Capacity N/A Security N/A Design Constraints N/A Other Non Behavioral Requirements 1) Using this feature is not encouraged and so provided under *Options* on the WWA composer menu bar. 2) The window close, "X" upper right of window, shall be active to provide an additional close, without saving, method. No prompt box necessary. 3) Buffer used to store changes shall clear after ever "Save to Monitor" or "Transmit" option is carried out. 4) Text widget shall be 69 characters wide, and approximately 3 carriage returns in length. 5) Text longer than 69 characters wide shall automatically wordwrap by the use of '\n' 6) Font used in text widget shall be "Times New Roman", 12pt. 7) A scroll bar shall be included for scrolling long text and located to the right of the text widget, spanning the same vertical distance. 8) QC: If hazard type is not selected before launching the headline editor, an "OK" message box shall display stating "*Please select a hazard type before editing a headline*." 8.1) A selection of "OK" shall close the message box without opening the headline editor interface. 9) Headline editor interface shall open in the center foreground of the active WWA client.		
Use Case Priority:	High		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None for operational use. Headline changes are still possible in template files by WWA administrator.		
	Page 2 of 2		

2.2.8. Forecaster Identification Use Case

Use Case Name:	Forecaster Identification	**ID**:	UC8
Initiating Actor(s):	Forecaster		
Description:	Selectable list of forecaster name(s)/number(s) used to fill optional "Name/Initials/Forecaster ID" field of NWS products.		
Pre-Conditions:	WWA Composer open/active, forecaster identification list predefined.		
Event Course:	1) Selecting *Options*, then *Forecaster Identification* from the composer menu bar will launch a list box from which the forecaster can be identified for created WWA products. 1.1) The *Default/None* setting is reset when WWA is launched. 2) In the provided list box the forecaster can scroll to his or her name. 2.1) Selecting *Options* on the menu bar provides the ability to toggle between *use name* and *use number* when selecting forecaster identification. 2.1.1) A toggle selection of *use name* shall submit the selected name of a forecaster at the end of EVERY created product. 2.1.2) A toggle selection of *use number* shall submit the selected number of a forecaster at the end of EVERY created product. 2.2) Single clicking with a left mouse button on an entry shall highlight the forecaster ID without saving. 3) Double click a left mouse button on an entry to save the selected forecaster ID and close the forecaster identification interface.. 3.1) To exit without saving, forecasters can select the *Close* option found under *File* on the menu bar or by selecting the *Cancel* button located across the bottom of the interface.		
Post-Conditions:	Selected ID will be placed at the end of EVERY created WWA or none if default selected.		
External Server Actor(s):	None		
External Receiver Actor(s):	None		
	Page 1 of 3		

	Detailed Use Case Information		
Use Case Name:	Forecaster Identification	**ID**:	UC8
Assumptions:	Predefined IFPS database, *forecasters* table, entries.		
Associated Non Behavioral Requirements:	Performance (Response time) N/A Capacity N/A Security N/A Design Constraints 1) Forecaster identification information constrained to number and name as locally defined in the IFPS database. Other Non Behavioral Requirements 1) A menu bar with keyboard accelerators shall be included in Forecaster Identification interface. 1.1) File: Use Number Ctrl+B, Use Name Ctrl+A, Close Ctrl+F4. 1.2) Help: Help Menu Ctrl+H (included but inactive) 1.2.1) Help Menu: This menu option shall be included, but remain inactive until functionality is defined and developed. 2) Under *File* on the menu bar, *use name* shall be maintained as default rather than *use number*. 2.1) A *use number* selection shall be reset back to the default, *use name*, when WWA application is restarted. 3) Forecaster identification selection will be *Default/None* by default and therefore no identification submitted at the end of created products. 4) Selected forecaster identification shall be placed at the end of EVERY created WWA, separated by a single carriage return and below the $$. 5) Forecaster identification should be displayed in ALL WWA client window's with the selected name or number between < >, but not displayed for selection *Default/None*. 5.1) WWA client window widgets include: Monitor, Geo-Viewer, Composer, Free Text Editor, Forecaster Identification, Preview, Transmit. 5.2) Overview/Synopsis Free Text Editor Example: *Test WWA - Overview/Synopsis Free Text Editor <Hogan> (unmodified)*		
	Page 2 of 3		

	Detailed Use Case Information (cont)		
Use Case Name:	Forecaster Identification	**ID**:	UC8
Associated Non Behavioral Requirements:	Other Non Behavioral Requirements (cont) 6) A vertical scroll bar shall be included and associated with the list box for scrolling list selections longer than provided viewing area and should be located to the right of the list box, spanning the same vertical length. 7) Include the ability to add, edit, and change forecaster identifications fields in the IFPS database shall also be managed in the WWA administration interface. 8) Viewable list box space should be maintain approximately 8 items, including the *Default/None* selection. 9) Width of list box widget should be approximately two characters longer than the length of the longest item. 10) *Default/None* selection shall always be the first item in the list and always present even in the absence of a defined forecaster identification database. 11) Forecaster identification interface shall open in the center foreground of the active WWA client.		
Use Case Priority:	Low		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None		
	Page 3 of 3		

2.2.9. Practice Mode Use Case

Use Case Name:	Practice Mode	**ID**:	UC9
Initiating Actor(s):	Forecaster		
Description:	Method to practice WWA product creation without public, nwr, or WFO intersite distribution. The information provided in this use case is build around the closely related "Transmit" use case (UC6) and assumes completed development of this and other related functions (Menu bar: UC5).		
Pre-Conditions:	Created WWA product		
Event Course:	From WWA Composer 1) After developing a desired WWA product / segment selecting *Transmit* will launch the product dissemination interface. 1.1) The dissemination interface maintains a dynamic header block asking forecasters to verify transmission of developed product. IE, *Save Practice Product LWXNPWLWX?* 1.2) The dissemination interface provides an option to back out of the practice session by selection the *No* button located at the bottom center of interface. 1.3) The dissemination interface provides an option to save the practice product locally by selecting the *Save* button located at the bottom center of interface. Replaces the *Yes* button found in same location described in *Transmit* use case UC6. 1.4) Created text displayed in the text widget, and used to store locally, shall have TEST message indicators scattered throughout various key sections of the product - see Appendix 3. 2) An "OK" message box will display stating "*WWA is currently in PRACTICE mode. Transmitting while in PRACTICE mode does not distribute to the public, NWR, or through WFO intersite*" 3) Forecaster selects *Save* button to store product in local WFO database or *No* button to exit without saving. *Save* - Store Selection Events 3.1) Product shall disseminate / save through handleOUP processing with location defined as "LOC", using the "-m" test switch, and also support partial product life cycle states - See appendix 1 3.1.1) Partial product life cycle translation: ADM = Followup, Clear, Cancel. Initial does not need a special message type [-w WMO_special_message_type]. 3.2) wwa_nwr shall NOT execute even if set as active. 3.3) wwaPush shall NOT execute even if set as active. 3.4) Product shall store in WWA db status table with new field of type "Practice"		
	Page 1 of 4		

Use Case Name:	Practice Mode (cont)	ID:	UC9
Event Course:	From WWA Composer (cont) 3.5) A successful return code from handleOUP will prompt an "OK" message box stating, "*CCCNNNNXXX stored successfully*", where CCCNNNXXX is the dynamic product ID similar to PDXWSWPDX. 3.6) Once "OK" is selected from message box, the message box, transmit interface, and composer interface shall all close. From WWA Monitor 1) Forecaster will select an unissued WWA from the monitor interface, then selects the *Transmit* button to launch product dissemination interface. 1.1) The dissemination interface maintains a dynamic header block asking forecasters to verify transmission of developed product. IE, *Save Practice Product LWXNPWLWX?* 1.2) The dissemination interface provides an option to back out of the practice session by selection the *No* button located at the bottom center of interface. 1.3) The dissemination interface provides an option to save the practice product locally by selecting the *Save* button located at the bottom center of interface. Replaces the *Yes* button found in same location described in *Transmit* use case UC6. 1.4) Created text displayed in the text widget, and used to store locally, shall have TEST message indicators scattered throughout various key sections of the product - see Appendix 3. 2) An "OK" message box will display stating "*WWA is currently in PRACTICE mode. Transmitting while in PRACTICE mode does not distribute to the public, NWR, or through WFO intersite*" 3) Forecaster selects *Save* button to store product in local WFO database or *No* button to exit without saving. *Save* - Store Selection Events 3.1) Product shall disseminate / save through handleOUP processing with location defined as "LOC", using the "-m" test switch, and also support partial product life cycle states - See appendix 1 3.1.1) Partial product life cycle translation: ADM = Followup, Clear, Cancel. Initial does not need a special message type [-w WMO_special_message_type]. 3.2.) wwa_nwr shall NOT execute even if set as active. 3.3) wwaPush shall NOT execute even if set as active. 3.4) Product shall stored in WWA db status table with new field type "Practice".		
	Page 2 of 4		

Use Case Name:	Practice Mode (cont)	**ID**:	UC9
Event Course:	From WWA Monitor 3.6) A successful return code from handleOUP shall prompt an "OK" message box stating, "*CCCNNNXXX stored successfully*", where CCCNNNXXX is the dynamic product ID similar to PDXWSWPDX. 3.7) Once "OK" is selected from message box, the message box and transmit interface both close.		
Post-Conditions:	Created product stored in WWA db status table, and stored in AWIPS db locally.		
External Server Actor(s):	wwa_nwr, wwa_push, handelOUP, wwa_monitor,		
External Receiver Actor(s):	wwa_receive		
	Page 3 of 4		

	Detailed Use Case Information		
Use Case Name:	Practice Mode	**ID**:	UC9
Assumptions:	Same interface used as described in active transmit use case (UC6). Use Case descriptions are only those that differ as described in UC6.		
Associated Non Behavioral Requirements:	Performance (Response time) N/A Capacity N/A Security N/A Design Constraints N/A Other Non Behavioral Requirements 1) Toggling between practice, test, & active modes shall maintain the created product so as not to force recreation. However, test indicators provided in the practice and test modes shall be removed if switched to active. 2) Assumes the same transmit interface as described in UC6 as to reuse existing functionality with small alterations unique to the practice mode as described in this use case. 3) Session type shall be displayed in ALL WWA client window title bars as the first word in the string for the "Practice" mode selection. 3.1) Free text editor example: *Practice WWA - Overview/Synopsis Free Text Editor <Hogan> (unmodified)* 4) The transmit interface is tied to the WWA client. If the WWA client is closed so to should an active transmit interface. 5) The Transmit interface is tied to the WWA composer interface. If the WWA composer interface is closed, so to should the transmit interface.		
Use Case Priority:	High		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None		
	Page 4 of 4		

2.2.10. Test Mode Use Case

Use Case Name:	Test Mode	**ID**:	UC10
Initiating Actor(s):	Forecaster		
Description:	Method to test WWA product creation while also maintaining public, nwr, and WFO intersite distribution. The information provided in this use case is build around the closely related "Transmit" use case (UC6) and assumes completed development of this and other related functions (Menu bar: UC5). Bottom line...exact functionality as in UC6, with the exception of the final product containing TEST indicators throughout the created product - See Appendix 3.		
Pre-Conditions:	Active WWA Composer		
Event Course:	From WWA Composer 1) After developing a desired WWA product / segment selecting *Transmit* will launch the product dissemination interface. 1.1) The dissemination interface maintains a dynamic header block asking forecasters to verify transmission of developed product. IE, *Transmit Test Product LWXNPWLWX?* 1.2) The dissemination interface provides an option to back out of the test session by selection the *No* button located at the bottom center of interface. 1.3) The dissemination interface provides an option to transmit the developed test product by selecting the *Send Test* button located at the bottom center of interface. Replaces the *Yes* button found in same location described in *Transmit* use case UC6. 1.4) Created text displayed in the text widget, and used for public dissemination, shall have TEST message indicators scattered throughout various key sections of the product - see Appendix 3. 2) An "OK" message box will display stating "*WWA is currently in TEST mode. Transmitting while in test mode WILL distribute products to the public, NWR, and also activate WFO intersite*" 3) Forecaster selects *Send Test* button to disseminate product to public or *No* button to exit without dissemination. *Send Test* - Transmit Events 3.1) Product shall disseminate through handleOUP processing with location defined as "DEF", using the "-m" test switch, and also support partial product life cycle states - See appendix 1 3.1.1) Partial product life cycle translation: ADM = Followup, Clear, Cancel. Initial does not need a special message type [-w WMO_special_message_type]. 3.2) wwa_nwr shall execute if set as active. 3.3) wwaPush shall execute if set as active. 3.4) Product shall store in WWA db status table with new field of type "Test"		
	Page 1 of 4		

Use Case Name:	Test Mode (cont)	**ID**:	UC10
Event Course:	From WWA Composer (cont) 3.5) A successful return code from handleOUP shall prompt an "OK" message box stating, "*CCCNNNNXXX transmitted successfully*", where CCCNNNXXX is the dynamic product ID similar to PDXWSWPDX. 3.6) Once "OK" is selected from message box, the message box, transmit interface, and composer interface shall all close. From WWA Monitor 1) Forecaster will select an unissued WWA from the monitor interface, then selects the *Transmit* button to launch product dissemination interface. 1.1) The dissemination interface maintains a dynamic header block asking forecasters to verify transmission of developed product. IE, *Transmit Test Product LWXNPWLWX?* 1.2) The dissemination interface provides an option to back out of the test session by selection the *No* button located at the bottom center of interface. 1.3) The dissemination interface provides an option to transmit the developed test product by selecting the *Send Test* button located at the bottom center of interface. Replaces the *Yes* button found in same location described in *Transmit* use case UC6. 1.4) Created text displayed in the text widget, and used for public dissemination, shall have TEST message indicators scattered throughout various key sections of the product - see Appendix 3. 2) An "OK" message box will display stating "*WWA is currently in TEST mode. Transmitting while in test mode WILL distribute products to the public, NWR, and also activate WFO intersite*" 3) Forecaster selects *Send Test* button to disseminate product to public or *No* button to exit without dissemination. *Send Test* - Transmit Events 3.1) Product shall disseminate through handleOUP processing with location defined as "DEF", using the "-m" test switch, and also support partial product live cycle states - See appendix 1 3.1.1) Partial product life cycle translation: ADM = Followup, Clear, Cancel. Initial does not need a special message type [-w WMO_special_message_type]. 3.2) wwa_nwr shall execute if set as active. 3.3) wwaPush shall execute if set as active. 3.4) Product shall store in WWA db status table with new field of type "Test"		
	Page 2 of 4		

Use Case Name:	Test Mode (cont)	**ID**:	UC10
Event Course:	From WWA Monitor 3.6) A successful return code from handleOUP shall prompt an "OK" message box stating, "*CCCNNNXXX transmitted successfully*", where CCCNNNXXX is the dynamic product ID similar to PDXWSWPDX. 3.7) Once "OK" is selected from message box, the message box and transmit interface both close.		
Post-Conditions:	Product dissemination to public or none depending on selection (Send Test/no).		
External Server Actor(s):	wwa_nwr, wwa_push, handelOUP, wwa_monitor,		
External Receiver Actor(s):	wwa_receive		
	Page 3 of 4		

	Detailed Use Case Information		
Use Case Name:	Test Mode	**ID**:	UC10
Assumptions:	Same interface used as described in active transmit use case (UC6). Use Case descriptions are only those that differ as described in UC6.		
Associated Non Behavioral Requirements:	Performance (Response time) N/A Capacity N/A Security N/A Design Constraints N/A Other Non Behavioral Requirements 1) Toggling between practice, test, & active modes shall maintain the created product so as not to force recreation. However, test indicators provided in the practice and test modes shall be removed if switched to active. 2) Assumes the same transmit interface as described in UC6 as to reuse existing functionality with small alterations unique to the test mode as described in this use case. 3) Session type shall be displayed in ALL WWA client window title bars as the first word in the string for the "Test" mode selection. 3.1) Free text editor example: *Test WWA - Overview/Synopsis Free Text Editor <Hogan> (unmodified)* 4) The transmit interface is tied to the WWA client. If the WWA client is closed so to should an active transmit interface. 5) The Transmit interface is tied to the WWA composer interface. If the WWA composer interface is closed, so to should the transmit interface.		
Use Case Priority:	High		
Source of Use Case:	Self-contained WWA design document		
List of Exceptions / Alternatives:	None		
	Page 4 of 4		

2.3. WWA Composer Context Diagram

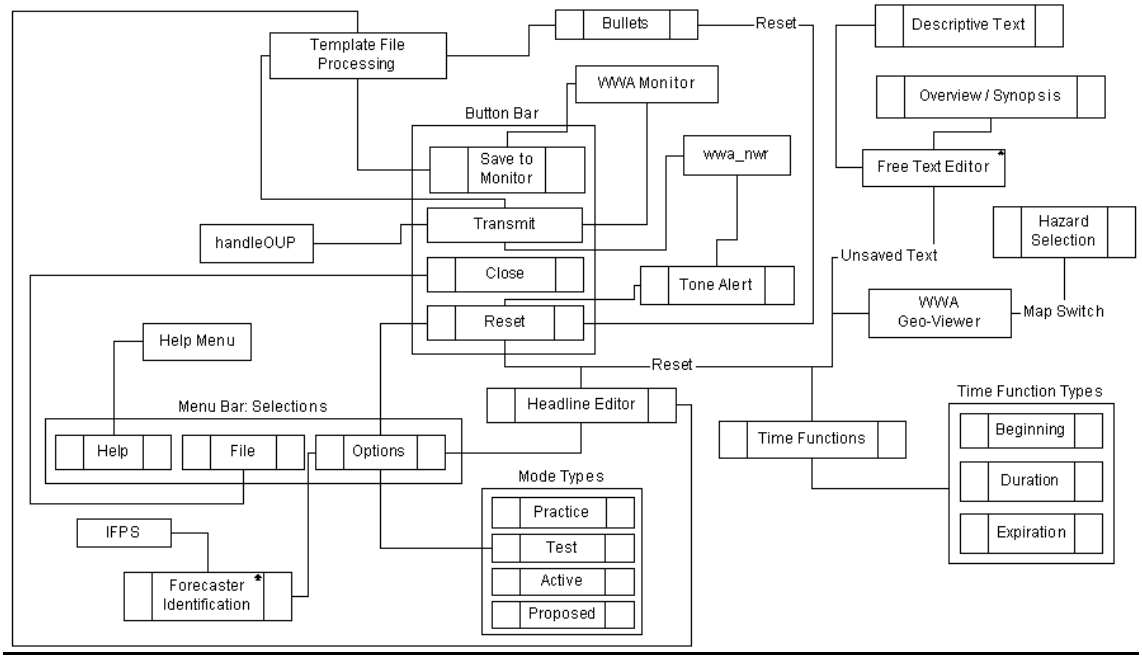

Figure 2 - WWA composer context diagram for self-contained model.
**Decomposition in subsequent sections*

2.4. Preview Display Context Diagram

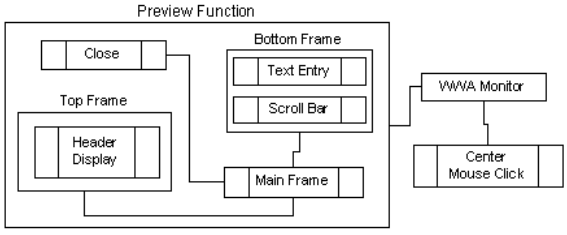

Figure 3 - WWA self-contained product preview display interface.

2.5. Free Text Editor Context Diagram

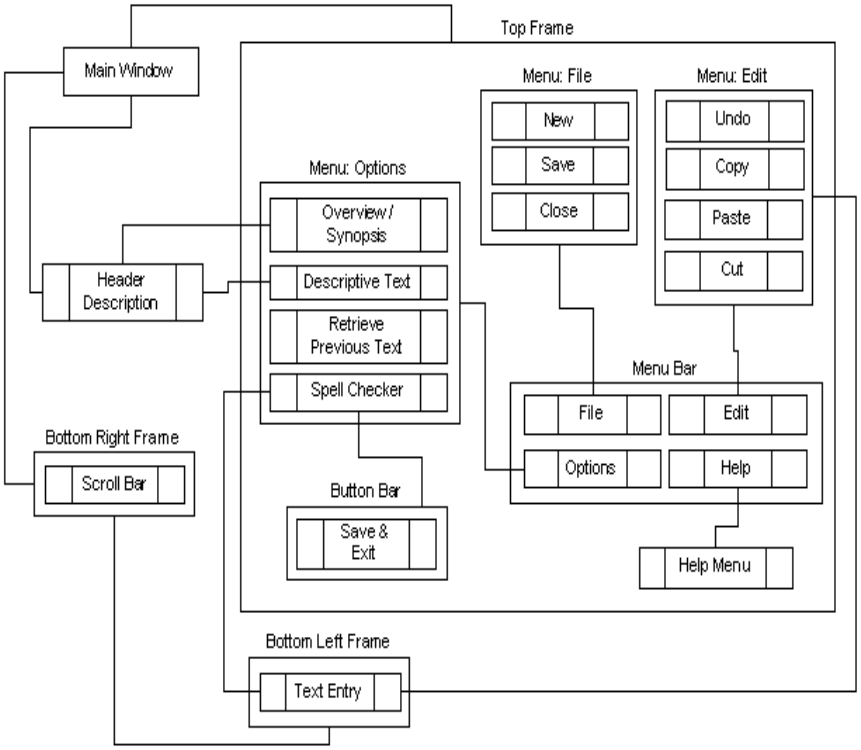

Figure 4 - WWA self-contained free text editor context diagram.

2.6. Forecaster Identification Context Diagram

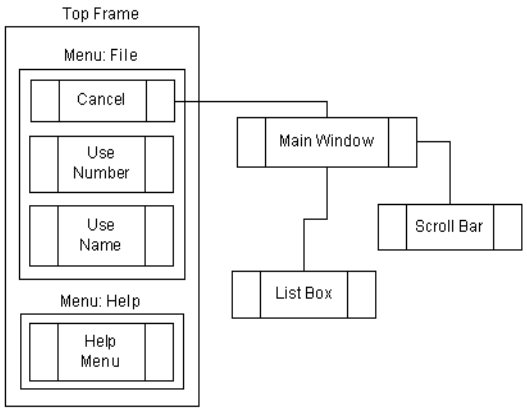

Figure 5 - Forecaster identification context diagram.

2.7. Captured Text Data Storage

In keeping with the current database infrastructure a new table, *wwa_text*, will be created in the WWA database and contain a total of six columns. The first four; *wfo*, *type*, *internal_id*, and *version* are necessary to link this table with the existing *status* and *geography* tables found within the same database. When *wfo*, *type*, *internal_id* and *version* entries are made to the *status* and *geography* tables, they will also be made in the *wwa_text* table and therefore become the link or transition fields of the corresponding tables. In addition to these columns, two text columns will be added into the *wwa_text* table, *synopsis* and *descriptive*. The text stored in these columns will be used by WWA when generating official text sent to the text workstation or used when the described transmit option becomes operational.

2.7.1. Entity Relationship List

TABLE	**COLUMNS**
*wwa_text	(wfo, type, internal_id, version, synopsis, descriptive)
geography	(wfo, type, internal_id, version, geo_type, geo_data)
status	(wfo, type, internal_id, version, action, issued, formatted, vtec_id, nwr_crs_id, wwa_mode, wwa_session_type, wx_hazard_1, tone, wx_hazard_2, specific_wx_hzrd_1, specific_wx_hzrd_2, bullets_used, prod_exp_time, issuance_time, last_follow_up, start_time, expiration_time)

TRANSITION	**COLUMNS**
match	(wfo, type internal_id, version)

**new table entry to store captured text.*

2.7.2. Entity Relationship Diagram

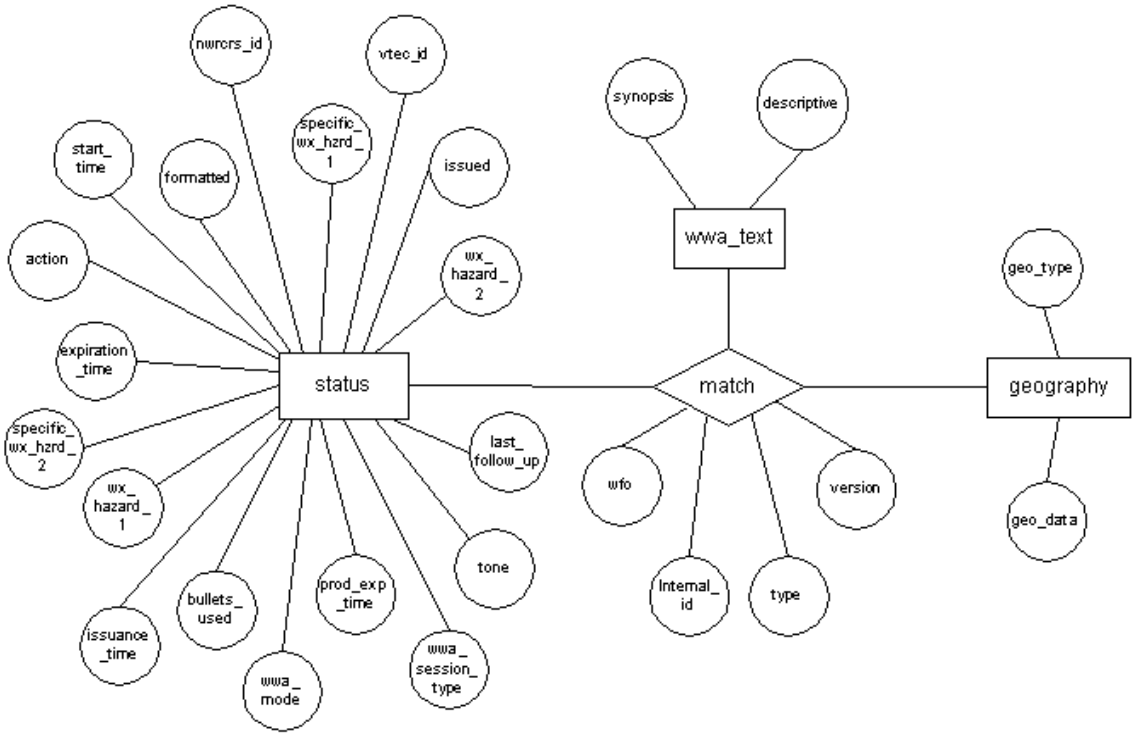

Figure 6 - WWA self-contained entity relationship (ER) diagram.

2.8. Forecaster Identification Data Storage

2.8.1. Entity Relationship List & Diagram

To support the forecaster identification function WWA will utilize the existing forecasters table located within the IFPS database.

TABLE	COLUMNS
forecasters	(number, name)

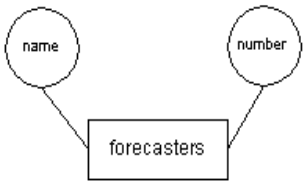

Figure 7 - Forecasters ER Diagram in IFPS database.

3. USER INTERFACES, FEATURES, AND FUNCTIONALITY

This section was included to provide a more user focused description than that provided in the software architecture section, mainly through conceptual interface imagery. Please note that user interface designs represented in this section are conceptual and therefore may appear slightly different once developed.

3.1. Capture Free Text

The first step toward developing a self-contained WWA model is to insure every aspect of NWS products are accounted for. This is necessary because in the final design forecasters will only have access to created text through the provided interfaces. Most sections found in WWA generated products are covered, except for the ability to capture free text highlighted in figure 8.

Product Format	**Description of Entry**
WWaaii cccc ddhhmm	***(WMO Heading)***
WSWxxx	***(AWIPS ID)***
URGENT - WINTER WEATHER MESSAGE	***(Product Name or MND)***
NATIONAL WEATHER SERVICE city state	***(Issuing Office)***
time am/pm time_zone day mon dd yyyy	***(Issuance time/date)***
...<Overview headline statement>...	***(Optional)***
.<General weather synopsis of winter storm>	***(Optional - one to two paragraphs)***
stZ001-005>015-ddhhmm-	***(UGC: Z & Product expiration time)***
county-county-county-	***(County Names)***
INCLUDING THE CITIES OF city...city...city.	***(City Names)***
time am/pm time_zone day mon dd yyyy	***(Issuance time/date)***
...WARNING HEADLINE...	
<Descriptive Text>	***(Two to three paragraphs)***
{Includes the following information: 1. Why warning was issued (Winter weather element(s) prompting the warning). 2. Detailed snowfall/ice accumulation/sleet amounts (e.g., 3 to 6 inches, 8 to 12 inches, one half inch of ice accumulation, one inch of sleet). 3. Timing of the event (beginning, ending, time of heaviest precipitation or worst conditions, duration). 4. Explanation of a warning (mainly before event begins) 5. Potential impact, call to action statement}	
$$	***(Segment Delimiter)***
Name/Initials/Forecaster ID	***(Optional after last segment)***

Figure 8 - Generic product format for a winter weather warning.

3.1.1. WWA Composer Interface

To accommodate the ability of capturing text, five changes will be made to the WWA composer interface. These changes are graphically shown in figure 9, with design details in section 2.2.

1) Menu bar replacement of pull down menu, located along the top of the WWA composer interface (2.2.5. UC5).
2) Free text editor buttons**,** *Overview/Synopsis* and *Descriptive Text* (2.2.1. UC1).
3) Transmit option (2.2.6. UC6).
4) Rename *Store* button to *Save to Monitor*.
5) Redefinition of *Restart* to *Reset* (2.2.3. UC3).

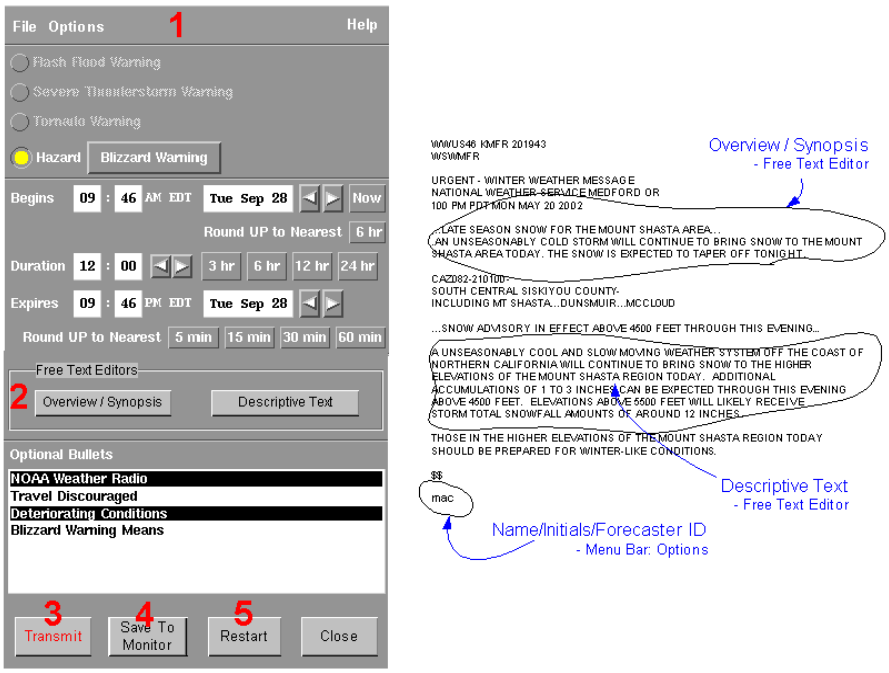

Figure 9 - WWA self-contained composer alterations with product capture text references.

3.1.2. Free Text Editor Interface

This shared text editor provides the means of capturing free text as entered by forecasters and stored for product life cycle development. A detailed description of this function can be obtained in UC 1, section 2.2.1., of this document.

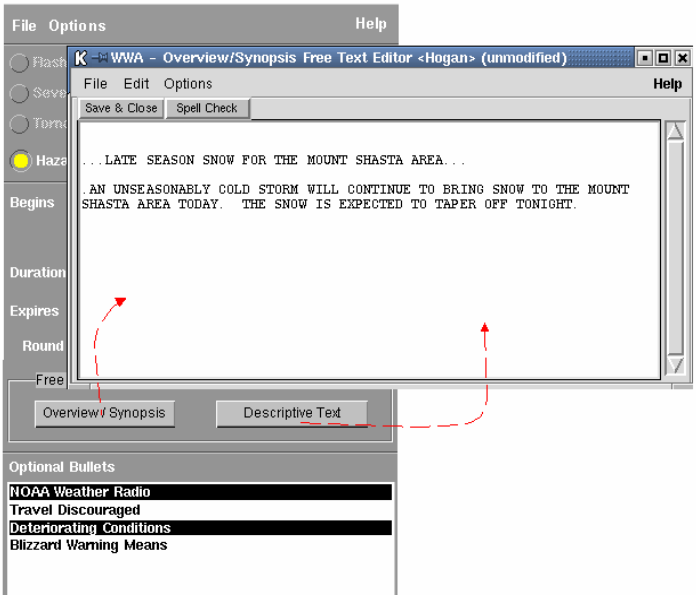

Figure 10 - WWA self-contained free text editor, launched from composer interface.

3.2. Headline Editor Interface

3.2.1. WWA Composer Headline Interface

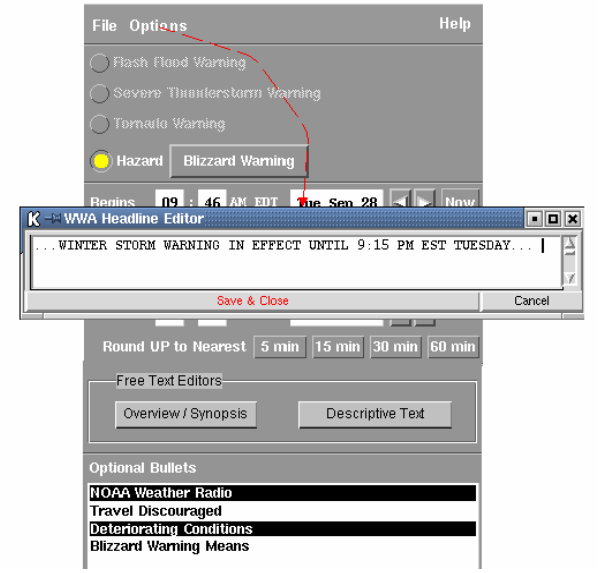

Figure 11 - Headline Editor launched from Composer interface.

3.3. Preview Display Interface

3.3.1. WWA Monitor Preview Display Interface

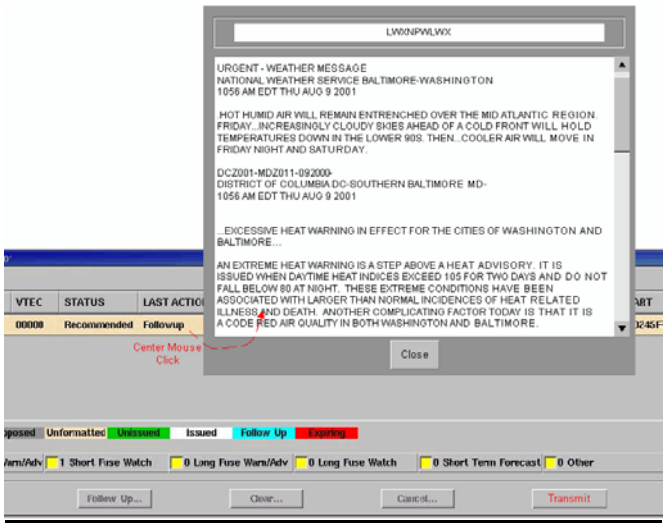

Figure 12 - Self-contained preview display, launched from monitor interface

3.4. Transmit Interface

3.4.1. WWA Monitor Transmit Interface

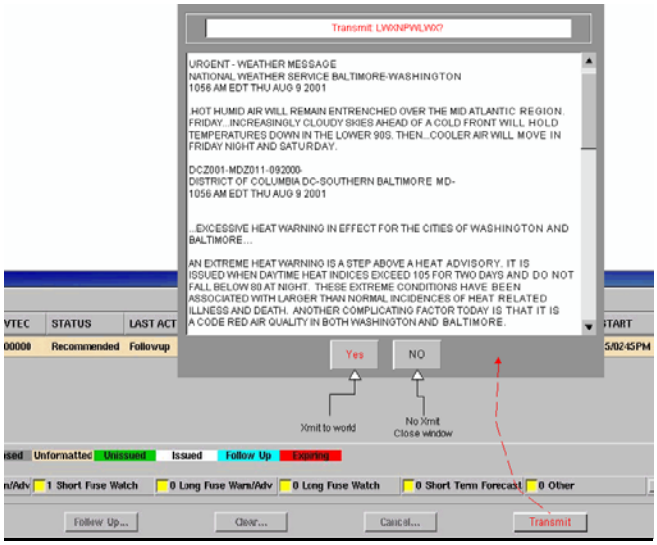

Figure 13 - Self-contained transmit interface, launched from WWA monitor.

3.4.2. WWA Composer Transmit Interface

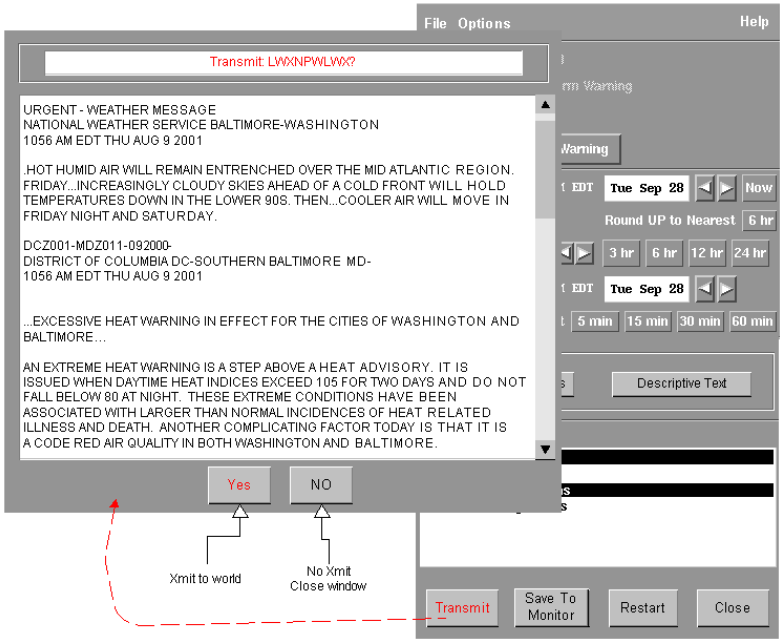

Figure 14 - WWA self-contained transmit function, launched from composer interface

3.5. Forecaster Identification

3.5.1. Forecaster Identification Interface

Figure 15 - Forecaster identification login interface.

4. DEPLOYMENT SCHEDULE

- Major implementations / scheduled delivery dates (OB 2 June 2003) (OB 3 September 2003):

Task	Build
▸ Capture text (UC1, UC2) <DCS>	OB2
▸ Transmit (UC6) <DCS>	OB2
▸ Practice & Test Modes (UC9, UC10, dependent on UC6) <DCS>	OB2
▸ Headline Editor (UC7, dependent on UC5) <DCS>	OB2
▸ VTEC Incrementing <DR>	OB2
▸ Composer Menu Bar (Partial of UC5) <DCS>	OB2
▸ Reset redefinition menu bar / button bar (Partial UC5 / UC3) <DR>	OB3
▸ Preview Display Function (UC4) <DCS>	OB3
▸ Forecaster Identification (UC8) <DCS>	OB3

5. REFERENCES

Data storage: Sean P. Webb NGIT
WWA developer input: July 11, 2002.
WWA Working Group input on draft: July 18, 2002.
Figure 8- Generic WSW table; NWSPD 10-703
handleOUP man page: http://www.nws.noaa.gov/mdl/awips/aifmdocs/APPENDIX05.htm
distributeProduct Man Page man page: http://www.nws.noaa.gov/mdl/awips/aifmdocs/APPENDIX05.htm

APPENDIX 1

HandleOUP Man Page
Handling Of Official User Products (OUPs)

Name

handleOUP.pl

Synopsis

handleOUP.pl [-w] [-m][-r] [-d ddHHMM]

where

[-w] specifies the WMO special message type,
[-m] selects test mode as the AWIPS operational mode,
[-r] specifies the receiving site on the AFOS network when AWIPS is in precommissioned or test mode,
[-d ddHHMM] specify the WMO message time stamp and are required arguments.

Description
handleOUP.pl automatically performs certain tasks associated with the handling of an Official User Product including local storage into the Informix database, product archival, distribution across the AWIPS WAN to the Network Control Facility (NCF) and to NOAA Weather Wire Service (NWWS) uplink sites, and distribution to the local AFOS interface when AWIPS is in pre-commissioned mode.

Product distribution on the AWIPS communications system is accomplished by submitting a message request to the x.400 ISOCOR Message Handling System. handleOUP.pl uses the distributeProduct command line interface to create a x.400 message enclosing the <product_pathname> as an attachment. distributeProduct uses the <AWIPS_ID> passed from handleOUP.pl to create the message header which must precede the contents of a product in accordance with SRSI H.3 requirements for product dissemination on the AWIPS WAN. The message is submitted at a priority level associated with the category of the product, which is derived from the <AWIPS_ID> (A table lookup (/awips/fxa/data/awipsPriorities.txt) is performed using the category as a key.)

handleOUP.pl supports two operational mode for AWIPS: commissioned and pre-commissioned. The commissioned mode or status of an AWIPS site is contained in the configuration file /data/fxa/workFiles/wanMsgHandling/siteCommission.txt. Based on the value for the commissioned status, the product is distributed across the AWIPS WAN either with a test WMO header (ii=97 in TTAAii) or a valid WMO header. Generation of test WMO headers may also be accomplished by selecting the -m command line option -- effectively downgrading the operational status of an AWIPS site from commissioned to test mode. In either AWIPS pre- commissioned or test mode, products are transmitted to AFOS with a proper message header. For this reason, the <product_pathname> is assumed to contain the contents of the OUP only, without a communications header.

Upon successful dissemination to either the NCF, to the predesignated primary and backup NWWS

uplink sites (as specified in /awips/ops/data/mhs/nwwsup_dlist.data), or to AFOS during AWIPS pre-commissioning phase, a copy of <product_pathname> is stored in a predesignated holding directory for archival (/data/fxa/archive/OUP/scratch).1 The product is archived and stored with the AWIPS WAN message header.

Options:

[-w WMO_special_message_type]

Specify the WMO message type. Supported types include the following: AMD, COR, RTD, SUP, SPL

[-m]

Specify test mode. Selecting this option results in the distribution of a product across the AWIPS WAN with a test WMO header as well as to AFOS with an AFOS-standard message header. Amendments are made to a copy of the product.

If the -m option is not selected, distributeProduct uses a site's commissioned status (obtained from /data/fxa/workFiles/wanMsgHandling/siteCommission.txt) to determine whether product is sent to AFOS and to the AWIPS WAN with a test WMO header.

[-r AFOS_routing_node]

Specify the three character AFOS receiving site. Examples of AFOS nodes include the following: LOC, DEF, CEN, CES, CSW, EAS, SOU, WES, ALL

Default: DEF

If AWIPS is in test or in pre-commissioned mode, handleOUP.pl uses the AFOS_routing_node to generate the following 2 line AFOS message header:

CCCNNNXXX ADR
TTAAii CCCC DDHHMM[BBB]

where

CCCNNNXXX is the 7-9 character AFOS product identifier, ADR is the 3 character AFOS routing node, TTAAii is the WMO header, CCCC is the 4 letter originating office identifier DDHHMM is the date/time stamp (UTC format)
BBB is the WMO special message type.

[-d ddHHMM]

Specify the WMO message time stamp. This will default to the current system time if not supplied. Supported format: ddHHMM = day of month, hour, min.

handleOUP.pl uses the /awips/fxa/data/afos2awips.txt configuration file to complete the message header: from the <AWIPS_ID>, handleOUP.pl obtains the equivalent AFOS product identifier, the WMO header, and the originating WFO identifier. The generated message header is subsequently prepended to a copy of the product.

If this option is not selected, a default value of DEF is assigned as the routing address. The DEF value instructs AFOS to search its default addressing configuration table for the given AFOS product identifier and obtain the intended recipient(s). If the product is not found in the table, AFOS sends the product to ALL sites on the AFOS network.

Required Arguments:
<AWIPS_ID> is the 8-10 character AWIPS identifier of the form CCCCNNNXXX
where

CCCC is the International Civil Aviation Organization (ICAO)-approved identifier of the office originating the product,
NNN is the 3 character product category,
XXX is the 1-3 character product designator

The NNNXXX is identical to the AFOS NNNXXX.

<product_pathname> is the fully qualified product filename. The file is assumed to contain only the contents of the product, without a communications header.

Return Values
handleOUP.pl returns the following error codes: 0 = successful 1 = error

Specifically, a successful return indicates that the product was successfully distributed to any one receiving site, was archived, and was stored in the text database.
An unsuccessful return indicates that either one or more handling tasks failed to be completed.

Log File
If handleOUP.pl is invoked from the as or ds, the log file resides in the following date directory:
/data/logs/fxa/<YYMMDD>

If handleOUP.pl is invoked from the workstation, the log file resides in the following date directory:
/data/logs/fxa/display/<DISPLAY>/<YYMMDD> where DISPLAY is value specified by the DISPLAY environment variable. (If the DISPLAY variable is not set, a log file is created in the date subdirectory in /data/logs/fxa/display/:0.)

The name of the handleOUP.pl log file is handleOUP.log.

The log file contains all logs for any handleOUP.pl invoked for that day. A header section for each invocation contains the <pid> where <pid> is the process id number. The log traces all OUP-related activities, from table lookups for message header generation and message composition for product distribution on the AWIPS WAN via the distributeProduct command line interface and to AFOS via the sendafos command line interface, to product storage and archival. This log file may be viewed in conjunction with the distributeProduct log file for complete traceback. The distributeProduct log file is stored in the same directory by the following name:

pre-AWIPS 5.1.1 release: distributeProduct<pid><host><HHMMSS>
POST-AWIPS 5.1.1 release: distributeProduct.log

The /data/fxa/archive/OUP/scratch directory is monitored hourly; at the end of which interval, all stored products are moved to the /data/fxa/archive/OUP/archive directory.

APPENDIX 2

distributeProduct Man Page
Product Distribution Across the WAN

Name

distributeProduct

Synopsis

distributeProduct [options] awips_id product_pathname

where options include the following:
[-c action, [,action]...]
[-s subject]
[-a addressee [,addressee]...]
[-p priority]
[-t message_type]
[-e enclosepath, [,enclosepath]...]
[-w wmo_special_message_type]
[-d ddHHMM]
[-m]

Description

distributeProduct creates a product message and submits it for distribution across the AWIPS WAN to the addressed sites. distributeProduct first prepares the product by creating the WAN communications header and prepending the header to a temporary copy of the product. Distribution requests, enclosing the temporary copy of the product, are subsequently made to the x.400 Message Handling System through the msg_send utility program.

Options:

[-c action_list]
Specify action(s) which the receiving site is to take upon receiving the product.
Current action keywords include the following:
TEST_ECHO
AFOS_STORE_TEXTDB
AWIPS_STORE_TEXTDB
NWWS_UPLINK

Multiple actions may be specified in a comma delimited list without intervening spaces. The action is matched against codes derived from the message receive table to determine the appropriate handling routine at the receiving site.

Default action: MHS default (code 134) -- message is stored in the default receive queue directory (/data/x400/msg/inbox/) and logged.

[-s subject]
Specify the subject of the message. The subject is an ASCII character string with a maximum length of 40 characters. The subject must be enclosed in quotes if it includes spaces or tabs.

[-a address_list]
Specify list of non-acknowledging recipients of the product message. Multiple recipients are specified through a comma-delimited list using either the 3 letter AWIPS site identifier and/or special address keywords.

Address keywords include the following:

DEFAULT
DEFAULTNCF
NWWSUP

Default addressee: DEFAULT

[-p priority]
Specify the priority of the message. Supported values are 0, 1, and 2, with level 2 representing the highest priority.

Default priority: 0

[-t message_type]
Specify the type of message. Supported message types include the following:
Routine Supplement
Amendment
Correction
Status
Test
Timing
Command
Inhibit
Clear
Warning Received
Special
Administrative
Routine Transmission Delayed
File Transfer

The entire name must be specified. If the name of the type has multiple words, the name must be enclosed in quotes.

Default type: Routine

Note: msg_send provides acknowledgment message types which are not supported by distributeProduct for Build 4.2. (These types are omitted from the above list.).

[-e enclosure_pathname_list]
Specify enclosure pathname(s). The path to the enclosure file may be relative or absolute. Enclosure files or attachments may be either text or binary.

[-w wmo_special_message_type]
Specify the WMO message type. Supported types include the following:
AMD
COR
RTD
SUP
SPL

[-d ddHHMM]
Specify the WMO message time stamp. This will default to the current system time if not supplied. Supported format:

ddHHMM = day of month, hour, min.

[-m]
Specify test or AWIPS pre-commissioned operational mode. This option generates a test WMO header which is then prepended to a copy of the product. If not specified, distributeProduct uses a site's commissioning status to determine whether a test WMO header will be generated.

Required Arguments:
awips_id
Specify the AWIPS identifier (CCCCNNNXXX) for the product. The AWIPS identifier is used to compose the WAN communications header.

product_pathname
Specify the absolute or relative pathname of the product.

Address Keywords

DEFAULT
Specifies adjacent sites as addressees based on the product's WMO id. Default specification is site configurable.

DEFAULTNCF
Specifies the Network Control Facility (NCF) as the addressee. At the NCF, the product may be further routed over the SBN, over the NWWS up-link, to the NWSTG, etc.

NWWSUP
Specifies a site's primary and backup NWWS up-link sites as addressees.

Action Keywords

TEST_ECHO
Echoes "Code 1", the message id, the message subject, the product pathname, and any enclosures to /tmp/msg_log.

AFOS_STORE_TEXTDB
Stores the product in the Informix database using the AFOS product identifier as the argument. The subject command line option (-s) must be specified with the AFOS identifier as the argument.

AWIPS_STORE_TEXTDB
Stores the product in the Informix database using the AWIPS product identifier as the argument. The subject command line option (-s) must be specified with the AWIPS identifier as the argument.

NWWS_UPLINK
Transmits the product over the NOAA Weather Wire Service satellite up-link. The subject command line option (-s) must be specified with the AFOS identifier as the argument.

Return Values

distributeProduct returns the following error codes:
0 = successful
-1 = error
> 0 = # failed messages

The number of actions approximately determines the number of messages created and submitted.

In addition, distributeProduct logs and prints to standard output the error messages returned by msg_send, which include the following:

1 Invalid message type.
2 Failed to create the message for some reason.
3 Failed to add an addressee to the message.
4 Failed to add an enclosure to the message.
5 Failed to add the subject of the message.
6 Failed to set the priority of the message.
7 Failed to add the body to the message.
8 Failed to submit the message.
9 Failed to assign a message id to the message.

Examples:

- *distributeProduct* -a DEFAULTNCF KLWXZFPMD /test/KLWXZFPMD.dat
  distributeProduct creates a product message addressed to the NCF. The message is sent at the default lowest priority level (0). At the NCF, a product look-up is performed and the product may be forwarded to the NWSTG, to the SBN, etc.

- *distributeProduct* -a NWWSUP -c NWWS_UPLINK KLWXZFPMD test/KLWXZFPMD.dat
  distributeProduct creates a product message addressed to the primary and backup NWWS

up-link sites for the sending site. At the receiving sites, the product is transmitted over the NWWS up-link.

- *distributeProduct* -a NHDW -c TEST_ECHO -s "Testing" KLWXZFPVA test/KLWXZFPVA.dat

  A copy of the product /test/KLWXZFPVA.dat is created with the WAN communications prepended to it. The product is sent to the NHDW. At the NHDW, the action TEST_ECHO is executed -- which records the MHS message id, the subject, the filename, and any enclosures, to /tmp/msg_log.

- distributeProduct -a NHDW -c AFOS_STORE_TEXTDB -s WBCZFPVA KLWXZFPVA /test/KLWXZFPVA.dat

  A copy of the product /test/KLWXZFPVA.dat is prepared for distribution. The prepared product is sent to the NHDW where it is stored into the text database using the AFOS identifier as the key.

- distributeProduct -a NHDW -c AWIPS_STORE_TEXTDB -s KLWXZFPVA KLWXZFPVA /test/KLWXZFPVA.dat

  The prepared product is sent to the NHDW where it is stored into the text database using the AWIPS identifier.

- distributeProduct -a NHDW -c TEST_ECHO,AFOS_STORE_TEXTDB -s WBCZFPVA KLWXZFPVA /test/KLWXZFPVA.dat

  The product is sent to the NHDW where 2 handling actions are taken: information is echoed to /tmp/msg_log and the product is stored in the text database using the AFOS identifier.

Log File

If *distributeProduct* is invoked from the as or ds, the log file resides in the following date directory:
/data/logs/fxa/<YYMMDD>

If *distributeProduct* is invoked from the workstation, the log file resides in the following date directory:
/data/logs/fxa/display/<DISPLAY>/<YYMMDD>

where

DISPLAY is value specified by the DISPLAY environment variable. (If the DISPLAY variable is not set, a log file is created in the date subdirectory in /data/logs/fxa/display/:0.)

The name of the *distributeProduct* log file is:

pre-AWIPS 5.1.1 release log file format:distributeProduct <pid><host><HHMMSS> There is a unique *distributeProduct* log file for any distributeProduct process run for that day.

POST-AWIPS 5.1.1 release log file format: distributeProduct.log

The *distributeProduct* log file contains all logs for any distributeProduct process run for that day.

This logging format is accomplished using the $LOG_PREF file to control LogStream's logging format, this is site configured. Please refer to LogStream documentation for appropriate $LOG_PREF configuration.

References

See msg_send documentation prepared by Michael Buchness, PRC.
See LogStream documentation.

APPENDIX 3

Test & Practice Mode Product Output Example

NATIONAL WEATHER SERVICE NORTHERN INDIANA
1000 AM EST TUE MAR 26 2002

.**TEST TEST TEST, THIS IS ONLY A TEST. THIS IS NOT AN ACTIVE SEVERE WEATHER STATEMENT.** LOW PRESSURE OVER SOUTH CENTRAL INDIANA WILL TRACK NORTHEAST INTO NORTH CENTRAL OHIO LATE THIS AFTERNOON. THIS TRACK WILL BRING A MIX OF WINTER WEATHER TO NORTHWEST OHIO AND NORTHERN INDIANA.

A MIX OF SNOW/SLEET/FREEZING RAIN WILL CONTINUE TO CAUSE SLICK ROADWAYS AND SIDEWALKS. TAKE EXTRA CAUTION WHILE TRAVELING AND ALLOW MORE TIME TO REACH YOUR DESTINATION.

STAY TUNED TO NOAA WEATHER RADIO AND OTHER LOCAL MEDIA FOR FURTHER DETAILS OR UPDATES.

INZ008-009-013-015>018-020-022>025-OHZ001-002-004-005-015-016-262100-
ALLEN IN-CASS IN-DE KALB IN-DEFIANCE OH-FULTON OH-FULTON IN-HENRY OH-
HUNTINGTON IN-KOSCIUSKO IN-MIAMI IN-NOBLE IN-PAULDING OH-PULASKI IN-
PUTNAM OH-WABASH IN-WHITE IN-WHITLEY IN-WILLIAMS OH-
INCLUDING THE CITIES OF...ARCHBOLD...AUBURN...BRYAN...BUTLER...
COLUMBIA CITY...DEFIANCE...FORT WAYNE...GARRETT...GRISSOM AFB...
HICKSVILLE...HUNTINGTON...KENDALLVILLE...LIGONIER...LOGANSPORT...
MONTICELLO...MONTPELIER...NAPOLEON...NEW HAVEN...NORTH MANCHESTER...
OTTAWA...PERU...ROCHESTER...SWANTON...SYRACUSE...TRI-LAKES...
WABASH...WARSAW...WAUSEON...WINAMAC AND WINONA LAKE
1018 AM EST TUE MAR 26 2002

...**TEST** WINTER WEATHER ADVISORY IN EFFECT FROM 10 AM THIS MORNING TO 11 AM EST WEDNESDAY **TEST**...

TEST TEST TEST, THIS IS ONLY A TEST. THIS IS NOT AN ACTIVE SEVERE WEATHER STATEMENT.

SNOW WILL CONTINUE INTO THE AFTERNOON HOURS...THEN BEGIN TO DIMINISH IN INTENSITY. THE SNOW MAY BE MIXED AT TIMES WITH SLEET. THE HEAVIEST SNOW WILL FALL ALONG A LOGANSPORT TO COLUMBIA CITY TO AUBURN LINE WHERE 5 INCHES OF SNOW IS EXPECTED. ELSEWHERE...3 TO 5 INCHES OF SNOW IS FORECAST.

THIS CONCLUDES THE TEST

Figure 16 - Test and practice mode product output example.